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ABSTRACT

In 1989, a study was conducted at the University of West Florida (UWF) to explore the success rate of Associate of Science (AS) and Associate of Applied Science (AAS) degree recipients at the college. Although the AS and AAS degrees were originally designed as terminal degrees leading to immediate employment, recipients today are discovering that baccalaureate degrees are required for many entry-level positions as well as for career advancement. In the early 1970's UWF began admitting AS degree recipients in selected fields by special permission of department chairpersons, and later permitted direct access to any program without special approval. By 1984-85, UWF had 206 AS degree holders registered; only two other state universities in Florida enrolled more. Using enrollment and graduation statistics on students admitted to UWF in fall 1983 with AS or AAS degrees, the study revealed that: (1) out of the 86 AS/AAS students entering in fall 1983, only 17 had graduated by the end of fall 1985; (2) by summer 1988, however, 48% of the AS/AAS students had graduated, compared to 67% of the associate of arts (AA) degree transfer students; (3) of the AS/AAS students who did not graduate from UWF, 8% left the college on academic suspension; and (4) the proportions of AS/AAS and AA students who were on suspension were comparable, as were the proportions of those who left UWE in good academic standing. Based on study findings, it was suggested that colleges and universities consider AS/AAS degree holders in enrollment plans and that these students be studied further to determine services that could increase their graduation rates. (WJT)

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# ASSOCIATE OF SCIENCE AND ASSOCIATE OF APPLIED SCIENCE: ASSURED ACADEMIC SUCCESS? ANOTHER SOURCE?

by

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Pensacola, Florida

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## About the Authors

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# Associate of Science and Associate of Applied Science: Assured Academic Success? Another Source?

In 1974 T. M. Grieder and Royce W. Cassady first examined the success rate of Associate of Science degree holders in upper-division baccalaureate degree programs at The University of West Florida. They concluded that Associate of Science and Associate of Applied Science degree holders performed equally as well as more traditional transfer students in upper-division university work. (1) In light of a task force appointed by the American Association of Community and Junior Colleges (AACJC,1985) "to identify criteria leading toward excellence in the A.A.S. degree" and the suggestion by community/junior colleges that the Associate of Science degree be recognized as a fully transferable degree, two members of the Office of Admissions staff at The University of West Florida decided to revisit the questions of academic success of A.S. and A.A.S. degree recipients in the eighties. (2)

Even though Associate of Science and Associate of Applied Science degrees were originally designed as "terminal degrees" to train individuals in technical fields and geared toward immediate employment upon completion, today recipients of these degrees often discover that they need more advanced schooling if they are to progress in their chosen fields. With the baccalaureate degree becoming the entry level degree for many positions, the student with an Associate of Science

or Associate of Applied Science is thus being limited in his chances for advancement. The problem faced by many students who have earned the A.S. and A.A.S. degrees is how to continue the pursuit of the baccalaureate without "starting over" in an A.A. track or without at least completing numerous additional lower division courses.

The University of West Florida is a member of the State University System of Florida located in the panhandle of Florida in Pensacola. The University began admitting Associate of Science degree recipients in selected fields by special permission of department chairpersons early in the seventies. Acceptance was later expanded to include admission directly into any academic program offered at The University without additional departmental approval.

Traditionally, most of the Associate of Science degree recipients transferred to The University from programs offered at four regional community colleges. However, as more schools began to offer Associate of Science degrees, a larger number of associate of science degree recipients from other Florida community colleges and community colleges in other states sought admission. Among the nine state institutions, The University of West Florida in 1984-85 had 206 A.S. degree holders registered. This number was exceeded by only two institutions, both of whom have enrollments more than three times as large. (2)

To determine the success of the A.S. degree recipients in baccalaureate programs at The University, the authors

designed the following specific questions to guide their research.

1. How many students admitted with Associate of Science or Associate of Applied Science degrees have graduated from The University of West Florida?

2. How many students who did not graduate left The University of West Florida not in good standing? (on suspension)?

3. How many of these students withdrew while in good standing? (had a GPA of 2.00 or above on a 4.00 grading scale)?

To provide responses to the above questions, Computer Services at The University of West Florida provided the required information. All information examined was limited to only those students admitted to The University in the fall semester 1983.

**How many students admitted with Associate of Science or Associate of Applied Science degrees have graduated from The University of West Florida?**

A review of enrollment and graduation statistics provided by Computer Services at The University of West Florida revealed that in the Fall semester 1983 eighty six students holding Associate of Science or Associate of Applied Science degrees were admitted to The University as transfer students. These students were admitted as juniors and began taking course work in chosen majors. Of the eighty six admitted who would logically and traditionally be eligible for graduation, only seventeen had graduated by the end of the Fall 1985 term. This low rate seems to indicate that A.S. degree students take longer to complete baccalaureate degrees in today's society as they balance jobs and school,

with educational endeavors being primarily part-time.

An examination of the data revealed that at the end of the summer semester 1988, however, forty-one (48%) of those who had enrolled had graduated. The researchers then asked if there was a significant difference between the proportion of baccalaureate degrees earned by the A.S. and A.A. degree holders who entered in the Fall semester 1983. To answer this question, the null hypothesis that there was no significant difference in the proportions of A.S. and A.A. degree holders earning the baccalaureate degree was tested using the Chi-Square distribution. Acceptance or rejection was based on the .05 level of significance.

The following table provides the observed and expected degrees earned and the calculated Chi-Square.

Table 1
Graduates

| Frequency Observed (Expected) | Graduated | Did Not Graduate | |
|---|---|---|---|
| A.S. | 41.0 (55.1) | 45.0 (30.9) | 86 |
| A.A. | 338.0 (323.9) | 168.0 (182.1) | 506 |
| Total | 379.0 | 213.0 | 592 |

Chi Square = 11.2
P < .05

With one degree of freedom and an alpha of .05, the critical value of Chi-Square is 3.84. Since the calculated Chi-Square is greater than 3.84, the null hypothesis was

rejected. There was a significant difference in the proportion of graduates among the A.S. and A.A. degree holders; a greater proportion of A.A. degree holders graduated.

**How many students who did not graduate left The University of West Florida not in good standing? (on suspension)?**

Of those students who had not graduated by the end of the summer semester 1988, seven (8%) were not in good standing. The percentage of students not in good standing does not appear to be unusual for students who experience the well-documented culture shock associated with transferring to a university from a community college.

When these students were compared to those who transferred with Associate of Arts degrees, the primary transferrable junior college degree, they appeared to fare well. In the Fall semester 1983, 506 Associate of Arts degree holders transferred and forty five (9%) were not in good standing by the end of the Fall 1988 semester.

The researchers then asked if the difference between the proportions was significant. To answer, the null hypothesis that there was no significant difference in the proportion of A.S. and A.A. degree holders who were suspended was tested using the Chi-Square distribution. Acceptance or rejection was based on the .05 level of significance.

Table 2 provides the observed and expected ( ) frequencies and the calculated Chi-Square.

Table 2
Suspensions

| Frequency Observed (Expected) | Suspended | Not Suspended | |
|---|---|---|---|
| A.S. | 7.0 (7.6) | 79.0 (78.4) | 86 |
| A.A. | 45.0 (44.4) | 461.0 (461.6) | 506 |
| Total | 52.0 | 540.0 | 592 |

Chi-Square = .379

With one degree of freedom and an alpha of .05, the critical value of Chi-Square is 3.84. Since the calculated Chi-Square is less than 3.84, the null hypothesis was not rejected.

**How many students withdrew while in good standing (had a GPA of 2.00 or better on a 4.00 grading scale)?**

Twenty-six Associate of Science and Associate of Applied Science transfer students had withdrawn by the end of the Summer semester 1988. One hundred twenty-six (25%) of the A.A. degree holders had withdrawn. To determine if the proportions differed significantly, the null hypothesis that there was no significant difference in the proportions of A.S. and A.A. degree holders who withdrew was tested using the Chi-Square distribution. Acceptance or rejection was based on the .05 level of significance. Table 3 provides the observed and expected ( ) frequencies and the calculated Chi-

Square.

Table 3
Withdrawals

| Frequency Observed (Expected) | Withdrew | Did Not Withdraw | |
|---|---|---|---|
| A.S. | 25.0 (21.9) | 61.0 (64.1) | 86 |
| A.A. | 126.0 (129.1) | 380.0 (376.9) | 506 |
| Total | 151.0 | 441.0 | 592 |

Chi-Square = .688

With one degree of freedom and an alpha of .05, the critical value of Chi-Square is 3.84. Since the calculated Chi-Square is less than 3.84, the null hypothesis was not rejected.

## Conclusion

In our title, we posed two questions. In response to the first, assured academic success, we cannot provide an unqualified positive answer. However, there is evidence sufficient to suggest that for four-year colleges and universities, the response to the second question, another source, the answer certainly must be completely positive. Even though the A.S. degree holders examined did not graduate in proportion to the A.A. degree holders, we submit that they certainly provide another source which colleges and universities should consider when making enrollment plans. The results also suggest that the A.S. degree holders should be studied more closely to determine which services might be

needed to increase the rate of graduation of the A.S. degree holders.

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